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August 30, 2007

Dr. Les Harder, Deputy Director
Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001

Dr. Michael Healey, Lead Scientist
CALFED Bay-Delta Program
650 Capitol Mall, 5th Floor
Sacramento, CA 95814

Dear Drs. Harder and Healey:

The CALFED Independent Science Board (ISB) has responsibility for oversight of the science used to inform decision making in the Bay-Delta system. As part of this responsibility, the ISB is overseeing the review of the Delta Risk Management Strategy (DRMS) being coordinated by the CALFED Science Program. The DRMS *Draft Phase 1 Report: Risk Analysis* was completed in late June and forwarded to the Independent Review Panel (IRP). The IRP completed an extensive and detailed review of the Draft Phase 1 Report on August 23rd. The ISB evaluated the review at its August 28th meeting. This evaluation included discussions with Dr. Johnnie Moore, Chair of the IRP.

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As you are aware, the IRP had numerous, substantive concerns with the report. These concerns are summarized as "Tier 1", general issues that impact the overall utility of the report, and "Tier 2", specific issues regarding methods, data analyses and presentation within the text of the report. The ISB is seeking to fully evaluate the IRP review and its implications for the utility of the DRMS Phase 1 report in on-going Delta planning efforts.

In order to complete this evaluation, the ISB seeks a response from DWR and the DRMS Phase 1 report authors to the comments in the IRP review. Given the short timelines for decision making, the board is only seeking a response to the Tier 1 comments at this time. It would be most helpful to the ISB if a written response would describe any plans for revision of the report, including the timeframe for those revisions, by September 17, 2007. If the authors disagree with elements of the review, they should provide specific reasons why.

The ISB plans to discuss the Draft DRMS Phase 1 report review and the initial author's responses in a teleconference during the last week of September. We

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invite any of the authors to participate in this discussion and to be available to answer board member questions. The teleconference will be organized by CALFED Science Program staff.

If there are any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'J. Mount', written over a horizontal line.

Jeffrey Mount
Chair, ISB

Memo to: Ralph Svetich, DRMS Project Manager
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1416 Ninth Street
Sacramento, CA 94236

Dr. Les Harder, Deputy Director
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From: Mike Healey
CALFED Lead Scientist

Subject: Independent Review of DRMS Phase 1

As requested by the Department of Water Resources and recommended by the Independent Science Board (ISB), the Science Program assembled a panel of independent experts to review the DRMS Phase 1 report. The Independent Review Panel (IRP) was chaired by former Lead Scientist, Johnnie Moore, of University of Montana and included Rich Adams, Ph.D., Oregon State University, Corvallis, OR; Bob Gilbert, Ph.D., University of Texas; Katharine Hayhoe, Ph.D., Texas Tech University & ATMOS Research & Consulting; W.F. Marcuson III, Ph.D., P.E., American Society of Civil Engineers; Arthur Mynett, Sc.D., Delft Hydraulics; Deb Neimeier, Ph.D., P.E., University of California, Davis; Kenny Rose, Ph.D., Louisiana State University; and Roy Shlemon, Ph.D., Roy J. Shlemon, and Associates, Inc. The panel received the draft DRMS Phase 1 report June 29th, met in Sacramento, CA for discussion August 2-3, and submitted the attached review to the Science Program August 23rd, 2007.

Regrettably, the draft Phase 1 report, originally scheduled for completion in mid-April, 2007, was completed over 2 months late (see original schedule in the draft Scope of Work presented to the ISB at their November, 2006 meeting at http://science.calwater.ca.gov/sci_tools/isb_archive_06.shtml), so that the IRP was not able to conduct its review before DRMS completed the draft Phase 2 report. As a result, Phase 2 has not been able to benefit from the review of Phase 1. Despite the late arrival of the Phase 1 report, the IRP was able to complete its review quickly. Nevertheless, given the tight deadlines governing processes such as Delta Vision which hoped to make use of both DRMS Phase 1 and Phase 2 reports, we felt compelled to have the review discussed by the CALFED Independent Science Board (ISB) before the authors of Phase 1 were able to respond to the review comments.

As you will see, and this will be reinforced by the ISB, the IRP details a number of serious concerns about the Phase 1 report. These concerns relate to transparency of approach, methodology, unexplained changes in methodology, and incomplete analyses. We hope that the authors can address these criticisms, particularly those identified as Tier

1, which are the most serious. If the authors of the report disagree with the IRP assessment in any of its particulars, we would like them to document why they feel the IRP assessment is incorrect.

As the ISB has scheduled another discussion of the Phase 1 report for a meeting to be held late September, it is important that the DRMS authors respond to the Tier 1 criticisms prior to that meeting detailing how they intend to address the concerns of the IRP, or demonstrating why the criticisms are invalid. The ISB has agreed to evaluate and comment upon both the review and the response of the authors to the review.

I would like to commend DWR for its desire to open this important document to independent peer review. I sincerely hope that it will be possible for the authors of the report to address adequately the substantive criticisms of the IRP as to do so will make the Phase 1 report and its analysis much more useful in the ongoing planning for Delta management. Although the IRP did not address positive aspects of the report it is clear that the authors attempted a very complicated analysis of a sort that has never before been completed on a project of this scale. Although the outcome, given time constraints, has some serious flaws, the authors have assembled an impressive base of information and many of the individual analyses are useful in their own right.

Sincerely,

Michael Healey
CALFED Lead Scientist